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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/900,254	07/25/1997	PETER PFEUFFER	22750/350	7919

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EXAMINER

YAO, SAM CHAUN CUA

ART UNIT	PAPER NUMBER
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1733

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DATE MAILED: 05/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

08/900,254

Applicant(s)

PFEUFFER, PETER

Examiner

Sam Chuan C. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 31.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A newly added limitation in claim 1 of now requiring "fully drawn and undrawn synthetic fibers" (emphasis added) raises an issue of introducing a New Matter to this claim. There appears to be nothing in the original disclosure which would suggest to one in the art that the applicant has in possession, at the time the application was filed, of newly claimed subject matter of "fully drawn and undrawn synthetic fibers" (emphasis added). If it is applicant's contention that the original disclosure provides sufficient support to the newly claimed subject matter, it is suggested for applicant cite passage(s) in the original disclosure, and explain why such passage or passages provide support to the newly added limitation.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is unclear what is intended by the limitation "fully drawn and undrawn synthetic fibers" (emphasis added). Does the adverb "fully" modify

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both “drawn and undrawn synthetic fibers” or ONLY modify drawn synthetic fibers? For the purpose of examining this claim, it is assumed that, the adverb “fully” only modifies drawn fibers.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (US 4,496,583) in view of either (Meyer (US 5,232,595) or Narou (US 4,876,007)) and Norton (US 2,862,542) for reasons of record set forth in an Examiner's Answer in Paper No. 24 and for reasons set forth hereinafter.

It is unclear whether the drawn fibers taught by Yamamoto et al are “fully drawn”. In any event, it would have been obvious in the art to use fully drawn fibers in the process of Yamamoto et al because it is a common practice in the art to fully draw fibers in order to form highly oriented fibers (i.e. high crystallinity and high strength); and because it is well within the purview of choice in the art to choose between only two possible alternatives: use fully drawn fibers or not fully drawn fibers.

6. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (US 4,496,583) in view of either (Meyer (US 5,232,595) or Narou (US

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4,876,007)) and Norton (US 2,862,542) for reasons of record set forth in an Examiner's Answer in Paper No. 24 and further in view of Sabee (US 4,910,064).

As for the added limitation, it would have been obvious in the art to fully drawn fibers in the process of Yamamoto et al because it is old in the art to interchangeably use fully or partially drawn fibers in forming a nonwoven web for use in making, for instance, filters as taught for example Sabee (col. 6 lines 3-40). The incentive for one in the art to use fully drawn fibers would have simply been to obtain a self-evident advantage of increasing strength of the nonwoven filter web of Yamamoto et al.

### ***Response to Arguments***

7. Applicant's arguments filed on 05-21-02 have been fully considered but they are not persuasive.

As for Applicant's argument on page 3 regarding the softening/melting point of fully drawn fibers of being greater than 220°C, Examiner agrees with Applicant that fully drawn fibers have relatively softening/melting temperature. That's because, fully drawn fibers are highly oriented; thus have a relatively higher crystallinity than fibers that are not fully drawn. It is worthnoting that, the presently recited claims do not remotely require any softening/melting point for "fully drawn fibers". In fact, the original disclosure fails to even remotely disclose any softening/melting point for drawn fibers; much less "fully drawn fibers".

As for Applicant's argument on page 3 full paragraph 1 regarding the Yamamoto et al patent, it would appear that, Applicant is mischaracterizing the Yamamoto et al patent. It is submitted that, one in the art reading the Yamamoto et al patent as a whole would not come to the same conclusion as Applicant. Contrary to Applicant's assertion, the Yamamoto et al patent is silent on whether fully drawn fibers or partially drawn fibers are used. As for examples 13 and 14 cited by Applicant as evidence that, Yamamoto et al teaches using partially drawn fibers. It is unclear how from these examples, which disclose an extruding temperature, drawing off speed and a draw ratio, can one reasonably conclude that the fibers are only partially drawn. As for Applicant's argument regarding the binding fibers of Yamamoto et al being partially drawn because *"their binding ability is present only under such extreme condition [temperature of 180° C]"* (phrase inserted), Applicant's attention is directed to column 3 lines 1-21, where it clearly discloses using undrawn fibers for binder fibers. Moreover, Yamamoto et al also teaches that the undrawn fibers can be used to fuse-bond fibers *"at a low temperature of 110° C to 200° C"* (emphasis added). In fact, contrary to Applicant's assertion, the binding operating temperature in example 14 is 130° C and not 180° C (col. 8 2<sup>nd</sup> line after table 2). As for Applicant's argument regarding the pressure exerted in these examples, first of all, the presently recited claims do not preclude operating at a high pressure. Equally important, examples 13-14 as well as other examples are ONLY for illustrative purpose. It does not necessarily mean that, just because in examples 13-14, the pressure exerted on a nonwoven sheet is high, all

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nonwoven sheets of Yamamoto et al has to be pressed at a high pressure. The desired amount of pressure to be exerted on the nonwoven sheet of Yamamoto et al clearly depends on the desired use-end of a resultant nonwoven sheet. In fact, the calendering of the "paper-like polyester fiber sheet" of Yamamoto is optional (col. 5 lines 1-5). As for Applicant's argument regarding the low porosity and denseness of the resultant article of Yamamoto et al, once again, the presently recited claims do not require any porosity or density. More important, such properties depend on the desired end-use of a resultant nonwoven sheet. Note that, Yamamoto et al teaches making very diverse articles (col. 4 line 62 to col. 5 line 8).

### ***Conclusion***


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (703) 308-4788. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 305-7718 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

scy  
May 22, 2002